UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,829	07/17/2003	Volker Klaus Null	TS-9504 (US)	1992

7590 07/27/2004

Jennifer D. Adamson
Shell Oil Company
Legal - Intellectual Property
P.O. Box 2463
Houston, TX 77252-2463

EXAMINER	
LEE, RIP A	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,829	NULL, VOLKER KLAUS	
	Examiner	Art Unit	
	Rip A. Lee	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *15-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 5-12* is/are rejected.

7)☒ Claim(s) *3,4,11,13 and 14* is/are objected to.

8)☒ Claim(s) *1-20* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-14, drawn to a polystyrene composition, classified in class 524, subclass 490.

   II. Claims 15-20, drawn to a process for preparing white oil, classified in class 208, subclass 58.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). Whereas invention I is drawn to a composition, invention II is drawn to a process of making white oil. Clearly, the two inventions have different functions and different effects. Moreover, the composition does not necessarily contain white oil prepared by the claimed process.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Jennifer D. Adamson on July 15, 2004, a provisional election was made without traverse to prosecute the invention of group I, claims 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-20 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

7. Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to limit further the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Since the recitation is essentially the same as that of claim 10, claim 11 fails to limit further the subject matter of claim 10.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1, 2, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 3,865,776 to Gergen *et al.*

The prior art of Gergen *et al.* teaches a polystyrene composition comprising a white oil with Saybolt color index of +30 (entry A, Table 1; claim 1). The oil has a SUS viscosity (210 °F) of 38 and a pour point of –55 °F (–48 °C). Kinematic viscosity is not recorded, however, in view of the SUS viscosity value at 210 °F, and in light of the fact that the recited, lower bound of V_K of 2 mm^2/sec is unexceptional, a reasonable basis exists to believe that the claimed feature is exhibited by the material shown in the prior art. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference.[1]

The recitation "Fischer-Tropsch derived" in claim 1 is presented in product-by-process form. It is well settled that where product by process claims are rejected over a prior art product that appears to be the same, the burden is shifted to the Applicant to establish an unobviousness difference, even if the production processes are different.[2,3] Furthermore, the patentability of a product claim rests on the product formed, not on the method by which it was produced.[4]

---

[1] *In re Fitzgerald*, 619 F.2d. 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02.

[2] *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

[3] Since it is the patentability of a product claimed, and not of the recited process steps, which must be established, a rejection based alternatively on either section 102 or section 103 of the statue is eminently fair and acceptable in cases where the prior art discloses a produce which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). See also MPEP § 2113.

[4] *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

12. Claims 1, 2, and 5-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 2,619,478 to Wehr *et al.*

Wehr *et al.* teaches a molding composition consisting essentially of polystyrene resin and a white mineral oil (claim 1) in the amount of up to 4 wt % (Table III). A representative white oil is Fractol A, which is a colorless oil having a viscosity of 44 cSt (mm^2/sec) at 100 °F (col. 5, lines 22-24). The Saybolt color of the oil is not disclosed, however, in light of the fact that the white mineral oil contains no unsaturation (col. 3, line 5), a reasonable basis exists to believe that the prior art material exhibits the claimed color index. And since the material contains no unsaturation and is colorless, basis exists to believe that the material contains the compositional requirement set forth in present claim 9 (that the material contains isoparaffins versus normal paraffins is obvious in light of the fact that the material is an oil instead of a wax). Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference.

The recitation "Fischer-Tropsch derived" in claim 1 is presented in product-by-process form. It is well settled that where product by process claims are rejected over a prior art product that appears to be the same, the burden is shifted to the Applicant to establish an unobviousness difference, even if the production processes are different. Furthermore, the patentability of a product claim rests on the product formed, not on the method by which it was produced.

13. Claims 1, 2, and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,565,163 to Forbes *et al.* in view of U.S. Patent No. 4,107,225 to Debande *et al.*

Forbes *et al.* teaches biaxially oriented polystyrene sheet products containing at least 3 wt % of food grade petroleum white oil (claim 12). According to USFDA regulation, food grade white oil must meet the requirements set forth in 21 C.F.R. 178.3620 (col. 3, lines 27-32). In particular, the regulation imposes strict limits on the level of unsaturated and aromatic contaminants, as well as sulfur-containing compound, which contribute to color of the oil (col. 3, lines 27-34). The reference does not describe physical properties of these food grade petroleum white oils. Debande *et al.* teaches white oils which meet USFDA color tests. Representative oils have a Saybolt color of +30 and viscosity of 4.88 cSt at 98.9 °C (for instance, entry 1, Table II).

Becasue Forbes *et al.* requires oils which meet FDA regulations and since Debande *et al.* teaches such oils, one having ordinary skill in the art would have found it obvious to use the oils shown in Debande *et al.* in the compositons of Forbes *et al.* The combination is obvious because one provides the requisite material for the other. Therefore, one of ordinary skill in the art would have expected such an embodiment to work.

While the oils in Debande *et al.* are prepared by hydrogenation of C_4 oligomers, it is clear that present claim 1 is written in product-by-process form. In instances where product by process claims are rejected over a prior art product that appears to be the same, the burden is shifted to the Applicant to establish an unobviousness difference, even if the production processes are different.

14. Claims 3, 4, 13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

15. The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The following references have been cited to show the state of the art with respect to polystyrene/white oil compositions.

U.S. Patent No. 6,531,263 to Könll
U.S. Patent No. 6,500,218 to Fan
U.S. Patent No. 6,451,865 to Migchels *et al.*
U.S. Patent No.6,399,696 to Toyosawa *et al.*
U.S. Patent No. 4,908,414 to Bronstert *et al.*
U.S. Patent No. 3,870,676 to Condon
EP 0684 971 to Endriss

The following references teach manufacturing processes for white mineral oils.

U.S. Patent No.6,475,960 to Berlowitz *et al.*
U.S. Patent No. 5,997,732 to Yenni *et al.*
U.S. Patent No. 5,453,176 to Narloch *et al.*
U.S. Patent No. 4,911,821 to Katzer *et al.*
U.S. Patent No. 4,810,355 to Hopkins *et al.*
U.S. Patent No. 3,926,777 to Mezl

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

ral

July 22, 2004

DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700